



US00RE37984E

(19) **United States**
 (12) **Reissued Patent**
 Jäckle et al.

(10) **Patent Number:** US RE37,984 E
 (45) **Date of Reissued Patent:** Feb. 11, 2003

(54) **PROCESS FOR ANALYZING LENGTH POLYMORPHISMS IN DNA REGIONS**(75) Inventors: **Herbert Jäckle**, Göttingen (DE);
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 Gottingen (DE)(21) Appl. No.: **09/591,383**(22) Filed: **Jun. 9, 2000****Related U.S. Patent Documents**

Reissue of:

(64) Patent No.: **5,766,847**
 Issued: **Jun. 16, 1998**
 Appl. No.: **08/145,617**
 Filed: **Nov. 4, 1993**

U.S. Applications:

(63) Continuation of application No. 07/681,494, filed as application No. PCT/EP89/01203 on Oct. 11, 1989, now abandoned.

(30) Foreign Application Priority Data

Oct. 11, 1988 (DE) 38 34 636

(51) **Int. Cl.⁷** C12P 19/34; C12Q 1/68;
 C07H 21/04(52) **U.S. Cl.** 435/6; 435/194; 435/91.02;
 536/23.1; 536/24.3; 536/24.33(58) **Field of Search** 435/6, 91.2, 194,
 435/810; 536/22.1, 23.1, 24.3, 24.22**(56) References Cited**

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A process for analyzing length polymorphism in DNA regions wherein the following steps are carried out:

- (a) annealing at least one primer pair to the DNA to be analyzed, wherein one of the molecules of the primer pair is substantially complementary to one of the complementary strands of the 5' or 3' flank of a simple or cryptically simple DNA sequence, and wherein the annealing occurs in such an orientation that the synthesis products obtained by a primer-controlled polymerisation reaction with one of said primers can serve as template for annealing the other primer after denaturation;
- (b) primer-controlled polymerase chain reaction; and
- (c) separating and analyzing the polymerase chain reaction products.